ABSTRACT

A device and a method for bidirectional single-wire data transmission of data information between an electronic control unit and at least one peripheral unit. A predefined constant voltage and/or a predefined constant current is applied to a driver device of the electronic control unit to produce voltage-coded and/or current-coded information. The voltage-coded and/or current-coded information is transmitted from the driver device of the electronic control unit to a driver device 30 of the peripheral unit via a single-wire line. At least the driver logic of the driver device and/or the communication logic of the peripheral unit are triggered and powered through the current flow. Information occurring on the peripheral unit is current-coded and/or voltage coded due to the triggering thereof. The current-coded and/or voltage-coded information are uploaded from the driver device of the peripheral unit to the driver device of the electronic control unit during the triggering of the peripheral unit via the same single-wire line.